Special 510(k) Premarket Notification GE LOGIQ Twin Ultrasound System January 18, 2005

FEB ~ 2 2005

## Attachment B

# Summary of Safety and Effectiveness

Prepared in accordance with 21 CFR Part 807.92(c).



1.

GE Medical Systems

General Electric Company P.O. Box 414, Milwaukee, WI 53201

#### Section a):

Submitter: GE Medical Systems, Ultrasound and Primary Care Diagnostics, LLC

PO Box 414

Milwaukee, WI 53201

Contact Person: Allen Schuh,

Manager, Safety and Regulatory Engineering

Telephone: 414-647-4385; Fax: 414-647-4090

Date Prepared:

January 18, 2005

Device Name: 2.

GE LOGIQ Twin Diagnostic Ultrasound System

Ultrasonic Pulsed Doppler Imaging System, 21 CFR 892.1550, 90-IYN Ultrasonic Pulsed Echo Imaging System, 21 CFR 892.1560, 90-IYO Diagnostic Ultrasonic Transducer, 21 CFR 892.1570, 90-ITX

3. Marketed Device:

GE LOGIQ Book Diagnostic Ultrasound System, K014206 and K032477 currently in

commercial distribution.

- 4. Device Description: The GE LOGIQ Twin is a compact and portable diagnostic ultrasound system with integrated keyboard, fold-up LCD type display and interchangeable electronic-array transducers. It has an overall size approximately 34 cm wide, 29 cm deep and 6 cm high in transport configuration and provides digital acquisition, processing and display capability. The user interface includes a computer keyboard, an intuitive layout of specialized controls, color GUI display and Doppler audio.
- 5. Indications for Use: The device is intended for use by a qualified physician for ultrasound evaluation of Fetal/OB; Abdominal (GYN & Urology); Pediatric; Small Organ (breast, testes, thyroid); Neonatal and Adult Cephalic: Cardiac (adult & pediatric); Peripheral Vascular; Intra-operative (abdominal, thoracic and PV), Musculo-skeletal conventional, Transrectal; and Transvaginal.
- 6. Comparison with Predicate Device: The GE LOGIQ Twin is of a comparable type and substantially equivalent to the currently marketed GE LOGIQ Book. It is a compact and readily portable unit having the same technological characteristics of design, construction, and materials; is comparable in key safety and effectiveness features; and has the same intended uses as the predicate device.

#### Section b):

- 1. Non-clinical Tests: The device has been evaluated for acoustic output, biocompatibility, cleaning and disinfection effectiveness as well as thermal, electrical and mechanical safety, and has been found to conform with applicable medical device safety standards.
- 2. Clinical Tests: None required.
- 3. Conclusion: Intended uses and other key features are consistent with traditional clinical practice, FDA quidelines, and established methods of patient examination. The design and development process of the manufacturer conforms with 21 CFR 820, ISO 9001 and ISO13485 quality systems. The device conforms to applicable medical device safety standards and compliance is verified through independent evaluation with ongoing factory surveillance. Diagnostic ultrasound has accumulated a long history of safe and effective performance. Therefore, it is the opinion of GE Medical Systems that the GE LOGIQ Twin Diagnostic Ultrasound is substantially equivalent with respect to safety and effectiveness to devices currently cleared for market.



FEB - 2 2005

Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Mr. Allen Schuh
Manager, GE Ultrasound Safety
and Regulatory Engineering
GE Healthcare Company
General Electric Company
GE Medical Systems, Ultrasound and Primary Care Diagnostics, LLC
4855 West Electric Avenue
WEST MILWAUKEE WI 53219

Re: K050126

Trade Name: GE LOGIQ Twin Ultrasound System

Regulation Number: 21 CFR 892.1550

Regulation Name: Ultrasonic pulsed doppler imaging system

Regulation Number: 21 CFR 892.1560

Regulation Name: Ultrasonic pulsed echo imaging system

Regulation Number: 21 CFR 892.1570

Regulation Name: Diagnostic ultrasonic transducer

Regulatory Class: II

Product Code: 90 IYN, IYO, and ITX

Dated: January 18, 2005 Received: January 19, 2005

#### Dear Mr. Schuh:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the GE LOGIQ Twin Ultrasound System, as described in your premarket notification:

#### Transducer Model Number

4C-RS	<u>8C-RS</u>
3S-RS	<u>i12L-RS</u>
7S-RS	i/t739-RS
10S-RS	BE9C-RS
8L-RS	12L-RS
E8C-RS	

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This determination of substantial equivalence is granted on the condition that prior to shipping the first device, you submit a postclearance special report. This report should contain complete information, including acoustic output measurements based on production line devices, requested in Appendix G, (enclosed) of the Center's September 30, 1997 "Information for Manufacturers Seeking Marketing Clearance of Diagnostic Ultrasound Systems and Transducers." If the special report is incomplete or contains unacceptable values (e.g., acoustic output greater than approved levels), then the 510(k) clearance may not apply to the production units which as a result may be considered adulterated or misbranded.

The special report should reference the manufacturer's 510(k) number. It should be clearly and prominently marked "ADD-TO-FILE" and should be submitted in duplicate to:

Food and Drug Administration Center for Devices and Radiological Health Document Mail Center (HFZ-401) 9200 Corporate Boulevard Rockville, Maryland 20850

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <a href="http://www.fda.gov/cdrh/dsma/dsmamain.html">http://www.fda.gov/cdrh/dsma/dsmamain.html</a>

If you have any questions regarding the content of this letter, please contact Rodrigo C. Perez at (301) 594-1212.

Sincerely yours,

For Nancy C. Brogdon

Director, Division of Reproductive, Abdominal and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure(s)

# **GE LOGIQ Twin Ultrasound System**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application  Anatomy/Region of Interest	В	M	PW Doppler	CW Doppler	Color Doppler	Color M Doppler			Harmonic Imaging	Coded Pulse	Other
Ophthalmic											<u> </u>
Fetal / Obstetrics	P	Р	P	N	Р	N	Р	P	N	N	<u> </u>
Abdominal <sup>[1]</sup>	Р	Р	P	N	Р_	N	Р	Р	Р	N	
Pediatric	Р	P	P	N	P	N	Р	Р	P	N	<u> </u>
Small Organ <sup>[2]</sup>	_Р	P	Р		Р		Р	P	P	N	
Neonatal Cephalic	Р	Р	P	N	P	N	P	Р	Р	N	ļ
Adult Cephalic	_ Р	P	Р	N_	P	N	P	P	Р	N	
Cardiac <sup>[3]</sup>	P	Р	P	N	P	N	Р	Р	Р	N	<u> </u>
Peripheral Vascular	Р	Р	Р	ļ	P		P	Р	Р	N	<del> </del>
Musculo-skeletal Conventional	P	P	Р	<u> </u>	P		P	P	Р	N	<del> </del>
Musculo-skeletal Superficial			ļ <u> </u>			ļ					<del> </del>
Other <sup>[4]</sup>	Р	Р	P	N	P	N	Р.	P	Р	N	<del> </del>
Exam Type, Means of Access			<u> </u>				<u> </u>	ļ	<u> </u>		<del> </del>
Transesophageal	_		<u> </u>			ļ	ļ		ļ	ļ	├
Transrectal	P	Р	P	ļ	Р_		P	P	N	<u> </u>	<del>                                     </del>
Transvaginal	Р	Р	P		P		P	P	N		
Transuretheral					<u> </u>	ļ		<del> </del>		<u> </u>	<del> </del>
Intraoperative	Р	Р	Р		P	<u> </u>	Р_	P	Р		<del> </del>
Intraoperative Neurological		<u> </u>	<u> </u>		<u> </u>	<u> </u>	ļ	1		ļ	<del> </del>
Intravascular			ļ	<u> </u>	<u> </u>	<u> </u>	<u> </u>	ļ		<u> </u>	<del> </del>
Laparoscopic						<u> </u>	andis C	<u> </u>	<u> </u>		<u> </u>

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes:	[1]	Abdominal	includes	renal,	GYN/Pelvic
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- [2] Small organ includes breast, testes, thyroid.
- [3] Cardiac is Adult and Pediatric.
- [4] Other use includes Urology/Prostate
- [\*] Combined modes are B/M, B/PWD, B/Color/PWD, B/Power/PWD.
- [\*] Coded Pulse is for digitally encoded harmonics and B-flow.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number \_\_\_\_\_

Prescription User (Per 21 CFR 801.109)

### **GE LOGIQ Twin with 4C-RS Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics	N	N	N		N		N	N	N	N	ļ
Abdominal <sup>[1]</sup>	N	N.	N		N		N	N	N	N	
Pediatric	N	N	N_		N		N	N	N	N	
Small Organ (specify)					. '						
Neonatal Cephalic											
Adult Cephalic			<u></u>								
Cardiac <sup>[3]</sup>			ļ								
Peripheral Vascular						<u> </u>		-			
Musculo-skeletal Conventional											
Musculo-skeletal Superficial						ļ					<u> </u>
Other <sup>[4]</sup>	N	N	N		N		N	N	N	N	<u> </u>
Exam Type, Means of Access			ļ								ļ
Transesophageal											
Transrectal											<u> </u>
Transvaginal											ļ
Transuretheral	-		<u> </u>								
Intraoperative (specify)								ļ			
Intraoperative Neurological			ļ				L				<u> </u>
Intravascular			ļ								ļ
Laparoscopic			l		<u> </u>				<u> </u>		<u> </u>

N = new indication; P = previously cleared by FDA; E = added under Appendix E Notes: [1] Abdominal includes GYN; [3] Cardiac is Adult and Pediatric. [4] Other use includes Urology; [\*] Combined modes are B/M, B/PWD, B/Color/PWD, B/Power/PWD. [\*] Coded Pulse is for digitally encoded harmonics and B-flow. (PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

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Division of Reproductive, Abdominal, and Radiological Devices K050126

Prescription User (Per 21 CFR 801.109)

### **GE LOGIQ Twin with 3S-RS Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics	N	N	N	N	N	N	N	N	N	N	
Abdominal <sup>(1)</sup>	Р	Р	P	N	Р	N	P	Р	Р	N	
Pediatric	N	N	N	N	N	N	N	N	N	N	
Small Organ (specify)											
Neonatal Cephalic						· • • • • • • • • • • • • • • • • • • •					
Adult Cephalic	P	Р	Р	N	Р	N	P	P	P	N _	
Cardiac <sup>[3]</sup>	P	P	Р	N	P	N	Р	P	Р	N	
Peripheral Vascular									•		
Musculo-skeletal Conventional											
Musculo-skeletal Superficial							!				
Other <sup>[4]</sup>	Р	P	Р	N	P	N	P	Р	P	N	
Exam Type, Means of Access											
Transesophageal											
Transrectal											
Transvaginal						_					
Transuretheral	***										
Intraoperative (specify)											
Intraoperative Neurological											
Intravascular		. <u>.</u>									
Laparoscopic					[a] = a]						

N	= new indication: P =	previously cleared by	v FDA:	E = added under	Appendix E

Notes:	[1] Abdominal includes GYN/Pelvic, Henal and Aoria-lilac artery;
	[3] Cardiac is Adult and Pediatric.
	£1 Combined modes are R/M_B/PWD_B/Color/PWD_B/Power/PWD_

[*] Coded Pulse is for digitally encoded harmonics and B-flow.	
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Division of Reproductive, Abdominal,

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and Radiological Devices K050/20

## **GE LOGIQ Twin with 7S-RS Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M	Power		Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics			ļ		<u> </u>						
Abdominal <sup>[1]</sup>	N	N	N	N	N	N	N	N	N	N	
Pediatric	N	N	N	N	N	N	N	N	N	N	
Small Organ (specify)[2]	_		<u> </u>		ļ						
Neonatal Cephalic	N	N	N	N	N	N	N	N	N	N	ļ
Adult Cephalic			<u> </u>								ļ
Cardiac <sup>[3]</sup>	N	N	N	N	N	N	N	N	N	N	, <u>.</u>
Peripheral Vascular											
Musculo-skeletal Conventional											ļ
Musculo-skeletal Superficial											
Other <sup>[4]</sup>	N	N	N	N	N	N	N	N	N	N	
Exam Type, Means of Access			<u> </u>								
Transesophageal			ļ								
Transrectal			ļ	<u> </u>	:						
Transvaginal											
Transuretheral			ļ								ļ
Intraoperative (specify) <sup>[5]</sup>			<u> </u>								<u> </u>
Intraoperative Neurological			ļ								ļ
Intravascular			ļ								
Laparoscopic											

N = r	new indication;	P = previously cleared by FDA;	E = added under Appendix E
		al Carlordes OVAL	

votes:	[1] Abdominal includes GYN.
	[3] Cardiac is Adult and Pediatric.
	[4] Other use includes Urology.
	[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.
	[*] Coded Pulse is for digitally encoded harmonics and B-flow.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Reproductive, Abdominal, Prescription User (Per 21 CFR 801.109) and Radiological Devices

510(k) Number \_

### **GE LOGIQ Twin with 10S-RS Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										•
Clinical Application  Anatomy/Region of Interest	В	- M	PW Doppler	CW Doppler	Color Doppler	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic			ļ						ļ		<u> </u>
Fetal / Obstetrics											
Abdominal <sup>[1]</sup>	N_	N	N	N_	N	N	N	N	N	N	
Pediatric	N	N	N	N	N	N	N	N	N	N	
Small Organ (specify)[2]											
Neonatal Cephalic	N	N	N	N	N	N	N	N	N	N	
Adult Cephalic	N	N	N	N	N	N	N	N	N	N	
Cardiac <sup>[3]</sup>	N	N	N	N	N	N	N	N	N	N	
Peripheral Vascular											
Musculo-skeletal Conventional											
Musculo-skeletal Superficial		<u> </u>	İ			,					
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											L
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]											
Intraoperative Neurological											
Intravascular					į						
Laparoscopic											

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdomina	l includes	GYN/Pelvic.
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- [3] Cardiac is Adult and Pediatric.
- [\*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.
- [\*] Coded Pulse is for digitally encoded harmonics and B-flow.

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Concurrence of CDRH, Office of Device Evaluation (ODE)	

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Prescription User (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

510(k) Number \_\_

and Radiological Devices K050126

### **GE LOGIQ Twin with 8L-RS Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

		Mode of Operation									
Clinical Application Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M	Power		Harmonic Imaging	Coded Pulse	Other
Ophthalmic			ļ								
Fetal / Obstetrics			ļ								ļ
Abdominal <sup>[1]</sup>	Р	Р	P		Р	:	Р	P	N	N	
Pediatric	Р	P	P		Р	·	Р	Р	N	N	
Small Organ (specify) <sup>[2]</sup>	P	Р	Р		Р		Р	Р	N	N	
Neonatal Cephalic			<u> </u>								
Adult Cephalic					<u> </u>						
Cardiac <sup>[3]</sup>	P	Р	Р		Р		Р	P	N		
Peripheral Vascular	P	Р	P	,	Р		Р	P	N	N	
Musculo-skeletal Conventional	Р	_ P	P	•	Р		Р	Р	N		
Musculo-skeletal Superficial					 						
Other <sup>[4]</sup>			ļ		ļ						
Exam Type, Means of Access								ļ. <u></u>			<u> </u>
Transesophageal											
Transrectal					 						
Transvaginal		_									
Transuretheral			ļ								
Intraoperative (specify)[5]	Р	Р	P		Р		P	Р	N		ļ
Intraoperative Neurological			ļ <u>-</u>		<u> </u>		<u> </u>				
Intravascular					ļ						
Laparoscopic			ļ <u>.</u>		<u> </u>						<u> </u>

N = new indication:	P = previously	cleared by FUA:	E = added under	Appendix E

[\*] Coded Pulse is for digitally encoded harmonics and B-flow.

[3] Cardiac is Adult and Pediatric.
[5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
[*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription User (Per 21 CFR 801.109)

Notes: [1] Abdominal includes GYN/Pelvic.

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Division of Reproductive, Abdominal,

and Radiological Devices K050126 510(k) Number \_

## GE LOGIQ Twin with E8C-RS Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

		Mode of Operation									
Clinical Application  Anatomy/ Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	
Ophthalmic					ļ						
Fetal / Obstetrics	P	P	P_		Р		Р	Р			
Abdominal <sup>[1]</sup>	Р	P	P		Р		Р	P			
Pediatric											
Small Organ (specify)			ļ <u></u> .								_
Neonatal Cephalic			<u> </u>	ļ							ļ
Adult Cephalic											ļ
Cardiac											
Peripheral Vascular			ļ <u>.</u>								ļ
Musculo-skeletal Conventional						:					<b> </b>
Musculo-skeletal Superficial			ļ <u>.                                    </u>		ļ				ļ		<u> </u>
Other <sup>[4]</sup>	Р	Р	Р		Р		Р	Р			<u> </u>
Exam Type, Means of Access			1	·					ĺ		
Transesophageal Transrectal	P	P	Р		Р		Р	P			
Transvaginal	Р	P	Р		P		Р	Р			ļ
Transuretheral											
Intraoperative (specify)								ļ			
Intraoperative Neurological											
Intravascular			ļ								
Laparoscopic			1 h . ED4				<u> </u>				

Laparosce	PIC	1			1		<u> </u>			 <u>—</u>
N = new i	ndication; P = pr	reviously clea	ared by FDA	E = a	dded und	der Appe	endix E			
Notes: [1	] Abdominal incl	ludes GYN/P	elvic;							
[4	l] Other use inclu	udes Urology	//Prostate;							
[*	] Combined mod	des are B/M,	B/PWD, B/G	Color/PV	VD, B/Po	wer/PW	ID.			
				<u>.</u>						 
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Prescription User (Per 21 CFR 801.109)

(Division Sign-Off) 4
Division of Reproductive, Abdominal,

and Radiological Devices 510(k) Number \_\_\_\_\_

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# **GE LOGIQ Twin with 8C-RS Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application	В	М	PW	CW	Color	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse	Other
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Dobbiei	Dobbiei	Widdes	magnig	1 disc	
Ophthalmic											-
Fetal / Obstetrics			ļ								ļ
Abdominal <sup>[1]</sup>	Р	P	P		Р		P	Р_	P		<u> </u>
Pediatric	Р	Р	P		P		P	Р	p		_
Small Organ (specify)	Р	Р	P		P		P	P	Р		<b> </b>
Neonatal Cephalic	Р	Р	p		P		Р	Р	P		
Adult Cephalic					ļ	_					_
Cardiac <sup>[3]</sup>	P	Р	Р_		Р	ļ	Р	P	P		ļ
Peripheral Vascular	Р	Р	P_		Р		P	P	Р	ļ. <u>.</u>	ļ
Musculo-skeletal Conventional	Р	P	P		P	<u> </u>	P	P	P		
Musculo-skeletal Superficial			<u> </u>		ļ						<u> </u>
Other <sup>[4]</sup>						ļ <u> </u>					<u> </u>
Exam Type, Means of Access											ļ
Transesophageal			<u> </u>	ļ				<u> </u>			<u> </u>
Transrectal			<u></u>	<u> </u>		_					<del> </del>
Transvaginal			<u> </u>		ļ						ļ
Transuretheral			<u> </u>	ļ. <u>.</u>	<u> </u>		ļ				ļ
Intraoperative (specify)			<u> </u>		<u> </u>	<u> </u>	<b> </b>	ļ <u> </u>	·	_	1
Intraoperative Neurological			ļ <u></u>		<u> </u>		ļ	<u> </u>	ļ	ļ	<del> </del>
Intravascular			ļ <u></u>					<u> </u>			
Laparoscopic		l						<u></u>	<u> </u>		<u> </u>

Laparoscopic			<u> </u>	<u> </u>		<u> </u>	1		 	<u> </u>
N = new indication; P = pr	eviously	cleared	by FDA	E = ac	ided und	ler Appe	endix E			
Notes: [1] Abdominal incl	udes G\	/N/Pelvi	c, Renal	and Ao	ta-iliac a	artery;				
[3] Cardiac is Adu	It and Pe	ediatric.								
[*] Combined mod	les are E	3/M, B/P	WD, B/0	Color/PW	/D, B/Po	wer/PW	/D.			
	(PLEASE D	O NOT WR	ITE BELOW	THIS LINE	- CONTINU	ON ANOT	HER PAGE	IF NEEDED)		
	Co	ncurren	ce of CD	RH, Offic	e of Dev	ice Evalu	uation (O	DE)		

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Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number

## GE LOGIQ Twin with i12L-RS Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

***************************************		Mode of Operation									
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M	Power	Combined Modes	Harmonic Imaging	Coded Pulse	Other
Ophthalmic					ļ						
Fetal / Obstetrics			<u> </u>			_					
Abdominal <sup>[1]</sup>	Р	Р	P		Р		Р	Р	Р	N	ļ <u>.</u>
Pediatric	P	P	P		Р		Р	Р	Р	N	
Small Organ (specify)[2]	Р	Р	P		Р		P	Р	P	N	
Neonatal Cephalic			<u> </u>								
Adult Cephalic					<u> </u>						
Cardiac <sup>[3]</sup>	P	Р	Р		Р	- <u>-</u> -	P	P	Р		
Peripheral Vascular	Р	P	Р		Р		Р	Р	Р	N	
Musculo-skeletal Conventional	Р	Р	Р		P		Р	Р	Р		
Musculo-skeletal Superficial											<u> </u>
Other <sup>[4]</sup>					ļ						
Exam Type, Means of Access									<u> </u>	<u> </u>	<u> </u>
Transesophageal			<u> </u>				ļ			ļ	
Transrectal			ļ							ļ	
Transvaginal										<u> </u>	
Transuretheral			<u> </u>		<u> </u>	<u> </u>			ļ		
Intraoperative (specify)[5]	P	Р	Р		P		Р	Р	P		ļ
Intraoperative Neurological			<u> </u>		<u> </u>			ļ			ļ
Intravascular			<u> </u>		<u> </u>						<u> </u>
Laparoscopic							<u> </u>	<u></u>			<u> </u>

N = new indication; P = previously cleared by FDA; E = added under Appendix E

Notes: [1] Abdominal include	s GYN.
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- [2] Small organ includes breast, testes, thyroid.
- [3] Cardiac is Adult and Pediatric.
- [5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).
- [\*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.
- [\*] Coded Pulse is for digitally encoded harmonics and B-flow.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

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Division of Reproductive, Abdominal,

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510(k) Number \_\_\_

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### GE LOGIQ Twin with i/t739-RS Transducers

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation										
Clinical Application  Anatomy/Region of Interest	В	М	PW Doppler	CW Doppler	Color	Color M			Harmonic Imaging	Coded Pulse	Other
Ophthalmic											
Fetal / Obstetrics									•		
Abdominal <sup>[1]</sup>	E	Е	E		E		E	E	E		
Pediatric	E	Ε	E		E		E	Е	E		
Small Organ (specify) <sup>[2]</sup>	E	Ε	E		E		E	E	Ε		
Neonatal Cephalic			ļ								
Adult Cephalic											
Cardiac <sup>[3]</sup>	Ε	Ε	E		E		E	E	E		
Peripheral Vascular	Ε	E	E		E		E	E	E		
Musculo-skeletal Conventional											
Musculo-skeletal Superficial											
Other <sup>[4]</sup>											
Exam Type, Means of Access											
Transesophageal											
Transrectal											ļ <u>-</u>
Transvaginal											
Transuretheral											
Intraoperative (specify)[5]	E	E	E		E		E	E	E		
Intraoperative Neurological											
Intravascular											
Laparoscopic					<u> </u>						<u> </u>

Ν	= new	indi	cation;	P =	= previ	ously	cleared	l by	FDA;	<b>=</b>	added	lunde	er A	Append	IX E	Ξ
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Notes:	[3] Cardiac is	Adult and F	Pediatric via	a intraope	erative.	

[5] Intraoperative includes abdominal, thoracic (cardiac), and vascular (PV).

[\*] Combined modes are B/M, B/PWD, B/CWD, B/Color/PWD, B/Amplitude/PWD.

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## GE LOGIQ Twin with BE9C-RS Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation											
Clinical Application  Anatomy/ Region of Interest	В	М	PW Doppler	CW Doppler	Color Doppler	Color M Doppler		Combined Modes	Harmonic Imaging	Coded Pulse		
Ophthalmic												
Fetal / Obstetrics	N	N	N		N	:	N	N	N			
Abdominal <sup>[1]</sup>	N	N	N		N		N	N	N			
Pediatric												
Small Organ (specify)			<u> </u>									
Neonatal Cephalic	:										·	
Adult Cephalic			ļ								·	
Cardiac			ļ								<u> </u>	
Peripheral Vascular												
Musculo-skeletal Conventional												
Musculo-skeletal Superficial												
Other <sup>[4]</sup>	N	N	N		N		N	N	N			
Exam Type, Means of Access							ļ					
Transesophageal						_						
Transrectal	N	N	N	ļ	N		N	N	N			
Transvaginal	N	N	N		N		N	N	N			
Transuretheral				<u></u>			:				ļ	
Intraoperative (specify)				<u> </u>								
Intraoperative Neurological			ļ									
Intravascular												
Laparoscopic				<u> </u>	<u> </u>						L	

N = nev	v indication; P = previously cleared by FDA; E = added under Appendix E
Notes:	[1] Abdominal includes GYN/Pelvic;
	[4] Other use includes Urology/Prostate;
	[*] Combined modes are B/M, B/PWD, B/Color/PWD, B/Power/PWD.
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510(k) Number

### **GE LOGIQ Twin with 12L-RS Transducer**

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

		Mode of Operation  PW CW Color Color M Power Combined Harmonic Coded											
Clinical Application	В	М	PW	CW	Color	Color M				Coded			
Anatomy/Region of Interest			Doppler	Doppler	Doppler	Doppler	Doppler	Modes	Imaging	Pulse*			
Ophthalmic													
Fetal / Obstetrics													
Abdominal													
Pediatric	N	N	N		N		N	N	N	N			
Small Organ <sup>[2]</sup>	N	N	N		N		N	N	N	N			
Neonatal Cephalic													
Adult Cephalic													
Cardiac													
Peripheral Vascular	N	N	N		N		N	N	N	N			
Musculo-skeletal Conventional	N	N	N		N		N	N	N	N			
Musculo-skeletal Superficial													
Other (specify)													
Exam Type, Means of Access													
Transesophageal													
Transrectal													
Transvaginal													
Transuretheral													
Intraoperative [5] (specify)													
Intraoperative Neurological													
Intravascular													
Laparoscopic													

Laparoscopic								
N = new indication; P = p	reviously cleare	d by FDA;	E = added ι	under App	endix E			
Notes: [2] Small organ in	ncludes breast, t	estes, thyre	oid.					
[*] Combined mo	des are B/M, B/F	PWD, B/Co	lor/PWD, B/	Power/PV	ND.			
[*] Coded Pulse is	s for digitally end	oded harm	onics and B	3-flow.				
	(PLEASE DO NOT W	RITE BELOW TH	IIS LINE - CONTI	NUE ON ANO	THER PAGE	IF NEEDED	))	 
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E-13 510(k) Number

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